

## REMARKS

### **I. Introduction**

Claims 1-5, 8, 9, 12-15, and 17 are currently pending. Claims 6, 7, 10, 11, and 16 were previously cancelled. Claims 1, 8, 9, 12 and 17 have been amended. The amendments to claims 1 and 17 are supported in the specification, for example, on page 30, lines 17-24. The amendments to 8, 9, 12 and 17 have been made to clarify the language of the claims. No new matter has been added.

In view of the foregoing amendments and the following remarks, Applicants respectfully submit that the claims are allowable and the Application is in condition for allowance.

### **II. Claim Rejections under 35 U.S.C. § 112, second paragraph**

Claims 1, 8, 9, 12 and 17 were rejected under 35 U.S.C. § 112, second paragraph for allegedly being indefinite for failing to point out and distinctly claim the subject matter regarded as the invention. Specifically, the Examiner alleges, on page 2 of the Office Action mailed May 29, 2009, that the term “apparent thickness” is unclear. Applicants respectfully submit that claims 1, 8, 9, 12 and 17 have been amended, to remove the term “apparent,” thus obviating the rejection.

Therefore, claims 1, 8, 9, 12 and 17 are allowable.

### **III. Claim Rejections under 35 U.S.C. § 103(a)**

Claims 1-5, 8, 9, 12-15 and 17 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kilb (U.S. 2001/0016282) in view of Yanagihara (U.S. 5,543,250). Applicants disagree.

However, in an effort to expedite prosecution, claims 1 and 17 have been amended and now recite, in pertinent part, “wherein said current collector plate (g) comprises a conductive sheet having a plurality of protrusions produced by punching a corrugated plate from both sides.”

This configuration is used in battery F-6 and exemplified, for example in FIGS. 5 and 6. In FIG. 5, burrs 53 are formed around a pore A 51, which is made by upward punching with respect to the paper sheet, and a pore B 52, which is made by downward punching with respect to the paper sheet, as shown in FIG. 6, (see page 31, lines 3-8).

Furthermore, as shown in Table 4, battery F-6 having a configuration recited in claims 1 and 17, achieves an unexpectedly improved discharge capacity upon 6 mA and 30 mA discharge, compared to batteries F-1-A, having a similar configuration, except for the current collector plate (g) comprising a conductive sheet having a plurality of protrusions produced by punching a corrugated plate from both sides, as recited in amended claims 1 and 17.

The Examiner asserts on page 3-5 of the Office Action mailed May 29, 2009, that Kilb teaches an alkaline battery with pores. However, the Examiner concedes that Kilb does not teach a support that is punched metal or contains protrusions.

Therefore, Yanagihara is relied on for this alleged disclosure.

However, Yanagihara fails to cure the deficiencies of Kilb, at least because Yanagihara fails to teach or suggest a battery configuration, “wherein said current collector plate (g) comprises a conductive sheet having a plurality of protrusions produced by punching a **corrugated plate** from both sides.”

Moreover, as explained above, the battery configuration as recited in now amended claims 1 and 17, “wherein said current collector plate (g) comprises a conductive sheet having a plurality of protrusions produced by punching a corrugated plate from both sides,” achieves

**Application No.: 10/511,199**

unexpectedly improved results. This is shown, for example in Table 2, in which battery F-6 having the configuration recited in amended claims 1 and 17 achieves unexpectedly improved discharge capacity results as compared to other batteries.

As such, a person having ordinary skill in the art would not have found it obvious to combine Kilb with Yanagihara.

Thus, it is clear that the cited prior art fails to teach or suggest the subject matter recited in claims 1 and 17. Accordingly, claims 1 and 17 are allowable. Furthermore, claims 2-5, 8, 9 and 12-15 depend from and further define the subject matter of claim 1 and therefore are also allowable.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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